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ABSTRACT

In March, 1980, a project was undertaken to develop a model for continued identification and analysis of attrition factors in the North Carolina Community College System (NCCCS). Specifically, the project was designed to define attrition and distinguish dropouts from other non-returning students; develop and validate instruments for collecting attrition data; develop a survey for currently enrolled students to ascertain problem areas; determine broad and specific factors affecting attrition; and develop a data-gathering model. Over a 2-year period, data were collected from more than 10,000 students attending 7 NCCCS institutions, revealing: (1) a mean of 29.7% and a median of 24% of non-continuing students were graduates, transfers, and short-term goal completers; (2) students working full-time were significantly more likely to drop out than students working part-time; (3) dropout students felt more strongly that their classes "did not meet their expectations"; (4) dropout students rated their instructors lower than did persisters and achievers; and (5) work, financial, transportation, and personal reasons were most frequently given for dropping out. The project report includes a review of attrition literature; information on study background, methodology, and findings; and recommendations for a data-gathering model, involving annual data collection using personal interviews. Appendices include questionnaires for entering, enrolled, and non-continuing students. (Author/KL)

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Occupational Education Research Project Final Report

A MODEL FOR DETERMINING STUDENT ATTRITION

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June 1982

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North Carolina Department of Community Colleges
Division of Planning and Research Services
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Raleigh, North Carolina 27611

ABSTRACT

Van Allen, George H., Keim, H. David (II), and Anderson, Gloria J. A Model for Determining Student Attrition.

Introduction

The North Carolina Department of Community Colleges identified student attrition as a research priority area and requested proposals aimed at developing a model for studying student attrition. As a result of their proposals, three institutions were selected to jointly conduct a research effort. Beaufort County Community College, Edgecombe Technical College, and Nash Technical College began the study in March, 1980.

The purpose of this project was to develop a model for continued identification and analysis of attrition factors as they relate to students in the North Carolina Community College System. Since reported attrition rates ranged from 20.0 percent to 70.5 percent within the Community College System institutions, the primary emphasis of the project was to develop a standard system whereby causative attrition trends can be identified within each institution and for the system as a whole.

Major Objectives

The major objectives of the project were to:

1. Define the concept of attrition and clearly distinguish those students labeled "dropout" from other non-returning students.
2. Develop and validate instruments for collecting student attrition data.
3. Develop an institutional survey to be administered to currently enrolled students to ascertain perceived problems with administrative, support staff, and faculty.

4. Analyze the collective data to determine the broad and specific stimulating agents of attrition.

5. Provide a manual for the installation and use of the tested model. The manual will demonstrate how the model was constructed and its adaptability.

Over a two year period data were collected from more than 10,000 students attending seven institutions within the North Carolina Community College System. From this data and previous research, a model was developed and definite conclusions gleaned.

Major Findings

The principal research findings are summarized below:

. A mean of 29.7% and a median of 24% of non-continuing students are graduates, transfers, and short-term goal completers.

. Not counting short-term goal completers as "dropouts" reduces the so-called attrition rate by 13%.

. Students who work full-time are significantly more likely to drop out than students who work only part-time.

. Dropout students felt more strongly that their classes "did not meet their expectations."

. Dropout students rated their instructors lower than did persisters and achievers.

. Three times as many dropout students as achievers did not know the names of their faculty advisors.

. In agreement with the results of previous research studies, dropout students most frequently cited the following reasons for leaving school:

work, financial, transportation, and personal reasons.

. The results of the chi-square analyses, comparing the responses from each institution to the aggregate pattern of responses, demonstrate the sensitivity of one survey questionnaire to local variations in responses.

Major Recommendations

1. Data are commonly collected from students through the mail, telephone interviews and personal interviews. Mailings should only be used after personal interviews and telephone interviews have failed to produce results. Personal interviews have major inherent advantages which include:
   (1) information is collected immediately after the decision to withdraw is made;
   (2) the institution's representative can ask the withdrawing student to elaborate or explain points of concern;
   (3) individuals are more likely to present correct information in a personal interview as opposed to a written format or telephone communication.

   Where personal interviews are not possible, telephone interviews are preferred to the collection of data via mailings.

2. Data should be collected on an annual basis. This method will promote comparison in drops quarter to quarter and year to year. Dropout trends should quickly surface. Also, the student who "stops-out" can be tracked and counted properly.

3. The length of the questionnaire should be reviewed before adopting it at the local level. Those questions which are not applicable to the local situation should be dropped. After adoption and use, those questions exhibiting high inter-item correlation should be combined to promote brevity.

4. Regardless of the method of data collection, the collection process should be instituted as quickly as possible after the drops begin. The validity of data is generally enhanced by timely collection.

5. A system for analyzing data should be an integral part of any model adopted at the local level.

6. There must be an institutional commitment to reduce the dropout rate before an adequate model can be operationalized.

ACKNOWLEDGMENTS

The material presented herein is in part due to the contributions of individuals who are not generally recognized as project staff. Alice Stevenson, formerly of Beaufort County Community College, provided much of the "Review of Literature" contained in the manual. Charles Bucher served as chairman to the project's advisory committee and wrote introductory materials. David West provided assistance with statistical interpretation and editorial matters.

Lorraine Barnes' and Cindy Taylor's clerical support along with Anne Hancock's data entry skills allow the findings of this research to be displayed.

The color slide presentation was coordinated by Dr. Robert Brock and prepared by Kathy Munday.

The cover was designed by Douglas Stalls.

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INTRODUCTION

The objective of the introductory chapter is to provide a general overview of the research endeavor. The setting for the research, the problem studies, the purpose of the study, and the research questions constructed to facilitate the purpose are discussed in this chapter.

The Setting

The North Carolina Department of Community Colleges Office of Research identified "student attrition" as a research priority area for 1979-80 and requested proposals aimed at developing an attrition model. As a result of the submitted proposals, three institutions were selected to conduct a joint study which was entitled A Model for Determining Student Attrition, scheduled for a 22-month period beginning March 1, 1980 and ending December 31, 1981, which was later extended to June 30, 1982. Beaufort County Community College, Edgecombe Technical College, and Nash Technical College renamed the project the B.E.N. Student Retention Research Project and began intensive work on the study in April of 1980.

Beaufort County Community College, Edgecombe Technical College and Nash Technical College are members of the North Carolina Community College System. This system is composed of 23 community colleges and 35 technical colleges and institutes. The purpose of these institutions is to provide North Carolina citizens a comprehensive educational program that is beyond the scope of the high school and not ordinarily offered by the senior college and university. To carry out this purpose, the institutions offer a comprehensive educational program not otherwise available in the state. The comprehensive offerings include academic, cultural, and

occupational education and training opportunities ranging from basic education to the two-year associate degree. This program of education is available to anyone of eligible age who can learn and whose needs may be met by these institutions.

The State Board of Community Colleges is the duly constituted policy making body for the system. The governing board may adopt and execute such policies, regulations, and standards as it deems necessary to insure the quality of educational programs, to promote the systematic meeting of educational needs of the state, and to provide for the equitable distribution of state and federal funds to the institutions.

The Department of Community Colleges, under the administrative direction of the State Board of Community Colleges, provides state-level administration and leadership to the community college system. The Department's function is to provide leadership and assistance in the form of administration and educational services to institutions in the statewide system. Because the 58 institutions are governed locally by individual boards of trustees, the function of the Department in practice tends to be consultative and advisory. All personnel employed at each community college and technical institute (including the president) are employees of the local institution and not of the community college system.

Each institution in the community college system has a 13-member board of trustees. Four trustees are appointed by the Governor of North Carolina, four by the local boards of education, and four by the local board of county commissioners; the president of the local student government association serves as a non-voting, ex officio member.

Technical colleges and institutes offer two-year technical curriculum programs, vocational curriculum programs, and extension programs in general adult education. They also offer short-term, single courses for occupational

training and courses of cultural or personal interest. The community colleges offer all the same types of programs and courses as technical colleges or institutes. In addition, they offer college parallel transfer programs.

Technical programs prepare students for entry into jobs in para-professional fields. In addition to occupational courses, these programs include courses in English, math, and social science. In general, these programs are two academic years in length and lead to the Associate in Applied Science degree. Although the technical programs are designed for entrance into employment and not for college transfer, some courses are accepted for transfer credit by various senior colleges and universities. Applicants to technical programs must be high school graduates or the equivalent.

Vocational programs, generally ranging in length from one to seven quarters, are designed to prepare people for entrance into skilled occupations. Graduates of one to three quarter programs usually receive certificates while students completing a program of four or more quarters generally receive a diploma. These curricula include courses in communication skills and the social sciences directly related to the program. Students in vocational programs may or may not be high school graduates.

Since the establishment of the community college system in 1963, enrollment has increased from an unduplicated headcount enrollment of 52,870 or 7,781 full-time equivalent students (FTE) in 16 institutions to 566,515 unduplicated headcount enrollment or 122,491 FTE in 58 institutions at the end of the 1979-80 school year. Approximately 72% of the current headcount enrollment are in non-degree extension credit courses and about 28% in curriculum programs. However, curriculum programs account for about 55% of the full-time equivalent enrollment.

The 58 institutions are located so that 97% of the North Carolina population are within commuting distance of one of the institutions. Approximately 73% of the curriculum students attending community colleges and technical institutes come from the county in which the institution is located and about 20% from adjacent counties. Only 4% come from other North Carolina counties and less than 3% from other states.

The enrollment trend in the community college system is toward a larger proportion of minority and older adult students. The proportion of female enrollment over the past decade has increased almost 70%, and the proportion of male enrollment has declined correspondingly. Another trend is an increase of students enrolled in the technical programs. Trends in terms of sex, race, age, and educational levels of students are becoming more representative of the adult population in North Carolina. Approximately 76% of the enrollment is white and about 24% non-white; male enrollment is roughly 44% and female enrollment is 56%.

Statement of the Problem

For many years, diverse resources in North Carolina have concentrated efforts to create and develop a comprehensive system of community colleges and technical institutes/colleges. The institutions are non-resident, multipurpose, and community centered. They extend educational opportunity to the high school graduate as well as to any person 18 years old or older who is not a high school graduate. The only difference among the institutions is the breadth of curriculum offerings.

Because of the diversity of student abilities, aspirations, needs, and desires, it is very difficult to retain every student who enrolls in the various programs offered. In fact, some investigators suggest that

the "open door" is not an open door to upward educational mobility, but a revolving door in the sense that only a small proportion of community college students ever complete a program and graduate from the community college (Cross, 1972). However, in Pezzullo's (1978) review of the literature since 1973, it is suggested that the definitions of attrition may often underestimate or exaggerate the attrition rates which are reported from 20.9% to 70.5%. It appears that attrition rates would be in better perspective if they were viewed in terms of the student's initial educational goals upon admission to a two-year college.

In an article in The Open Door (Duckett, 1968), 10 schools within the North Carolina Community College System were surveyed concerning attrition rates and causes. One administrator's comments seemed blandly indicative of all who were interviewed in that their research was inconclusive and he "'suppose(d) the safest thing to say is that they withdraw for the usual reasons of marriage, employment, and lack of progress'" (Duckett, 1968, p. 6). The article also noted that many dropouts eventually returned to school, thus again confusing the definition of attrition. A second article in The Open Door (Trammel and Hantung, 1971) identified basically the same problem and cited the need for follow-up to determine if students actually met their educational goals.

The problem, then, is to identify the students who did not complete their intended educational goals and to examine the stated reasons for dropping out so that causes for attrition can be witnessed.

Purpose

The purpose of this project was to develop a model for continued identification and analysis of attrition factors as they relate to students in the North Carolina Community College System. Since reported attrition

rates ranged from 20.0% to 70.5% within the community college system institutions, the primary emphasis of the project was to develop a standard system whereby causative attrition trends can be identified within each institution and for the system as a whole. Two survey instruments were designed to compare the attitudes of currently enrolled students with those who leave the institution early.

The attrition model developed through this study will allow institutions to conduct their own study and analyze the results. The model will also permit a systematic and uniform method of data collection for conducting attrition studies on a system-wide basis. The developed model provides the needed in-depth knowledge of student attrition characteristics necessary for institutional and system-wide planning.

The major objectives of the project were to:

1. Define the concept of attrition relevant to the North Carolina Community College System and clearly distinguish those students labeled "dropout" from other non-returning students.
2. Develop and validate an instrument for collecting data on student attrition and validating it statistically through the use of a summer attrition sample.
3. Develop an institutional survey to be administered to currently enrolled students to ascertain perceived problems with administrative, support staff, and faculty which may be directly or indirectly related to attrition.
4. Analyze the data received from both survey instruments and qualify the causes of attrition by determining the broad and the specific stimulating agents.

5. Provide a manual for the installation and use of the tested model that would allow each institution within the community college system to study the causes and trends of student attrition indigenous to its own geographic and socioeconomic climate.

Research Questions

Five research questions focusing on determining the distinguishing features of dropouts were developed to guide the research effort. The questions of concern are stated below:

1. Which students constitute the group labeled "dropouts," as opposed to persisters, transfers, and short-term goal completers?
2. What is the percentage of students who do not complete their intended educational goal?
3. What differences are there between persisters, "dropouts," and achievers?
4. Why do students leave the institution prior to completing their intended educational goal?
5. Does the methodology used in the study indicate that it is sensitive enough to distinguish patterns of responses among individual institutions?

REVIEW OF THE LITERATURE

This chapter presents a review of the relevant literature concerned with student attrition. The review is offered to provide the reader with an historical perspective of a notable area of educational research.

Student Attrition Models

The baseline study of attrition began with Iffert's 1957 study in which he reported a national dropout rate of 60.5% in public and private, two-year as well as four-year colleges over a four-year period. College withdrawal studies began to include community and junior colleges in the 1960's (Trent and Medsker, 1968). Since then, high attrition rates and declining enrollments have caused significant increases in the quantity of community college attrition studies now appearing in the literature. The majority of these studies are empirical and tend to approach the problem in two ways. First, they attempt to determine student reasons for withdrawal from community colleges prior to graduation or second, they attempt to determine factors that may predict student success or failure in the community colleges. Recently there have been a few efforts to conceptualize and develop a model of the attrition process. Two studies in particular, Spady (1971) and Tinto (1975), have compared reasons for attrition with Durkheim's theory of suicide and thereby provide a type of umbrella from which empirical studies become synthesized.

Spady proposed the following analogy between Durkheim's theory of suicide and student attrition:

> Although dropping out is clearly a less drastic form of rejecting social life than is suicide, we assume that the social conditions that affect the former parallel those that produce the latter; a lack of consistent, intimate interaction with others, holding values and orientations that are dissimilar from those of general social collectivity, and lacking

> a sense of compatibility with the immediate social system. However, since the student's academic role has many parallels with his future occupational role, it would not be inappropriate to extend this analogy a step farther. Poor performance in one's occupational role (viz. low grades) and inadequate identification with the norms of the occupational group (viz. low intellectual development) are also plausible additions to this system. The elementary Durkheimian model that we propose, then, consists of five independent variables, four of which influence the fifth, social integration, which in turn interacts with the other four to influence attrition. We would like to suggest further, however, that the link between social integration and dropping out is actually indirect. Intervening are at least two critical variables that flow from the integration process: satisfaction with one's college experiences, and commitment to the social system (1970, pp. 71-2).

A common conclusion of attrition researchers and theorists has been that retention and attrition generally result from interactions between persons and institutions (Lenning et al., 1980). Spady's (1970) model accommodates the interactions between students (abilities, attitudes, expectations, etc.) and the demands and expectations of fellow students, administrators, faculty, and the curriculum. Two persisting situations may affect involuntary or voluntary withdrawal by the student. First, if discrepancies between the student and the environment are too great, the student's assimilation and acceptance into the academic and social systems of the institution may not occur. Second, when the rewards (grades and intellectual development) within the system become too insufficient to provide the student adequate satisfaction, the student may withdraw.

Tinto (1975) theorized that attrition results from a cultural and social interaction between the dropout and others inside and outside the college community over a period of time, and when the student is no longer socially integrated with those others nor holds the dominant values reflected in the institution's functioning. A diagram of Tinto's model is reproduced in Figure 1. It conveys a longitudinal process of ongoing interactions

between the individual and both the academic and social systems within and around the institution. Crucial to modifying the students' college completion goals and commitments to the institutions are the interactions with both students and faculty in formal academic and informal social settings. Tinto also acknowledges that factors external to the college (such as changes in the economy) may have a bearing on students' goals and commitments. Retention will occur if the students' college completion goals and commitments to the institution remain strong and outweigh alternatives to college. Withdrawal occurs when this is not the case. The cause of attrition will then appear to be a lack of fit between the individual and the institution.

Several studies focusing specifically on four-year institutions support Tinto's hypotheses. Terenzini and Pascarella (1977) used the Adjective Rating Scale on both nonacademic and academic aspects of student life for a sample of 500 freshmen at Syracuse University. The results of their factor analysis followed by discriminant analyses appear to support Tinto's thesis in that both social and academic factors could significantly differentiate persisters and non-persisters in the predicted directions (1975). In a later study of Syracuse students, Pascarella and Terenzini (1979) supported the theory by relating persistence to the amount of interaction outside of class between students and faculty. Husband (1976) reported that proportionately more dropouts than persisters from Spring Arbor College had no significant other, which also supports Tinto's theory. However, one study conducted at a technical institute by Hanson and Taylor (1970) reported the contradictory finding that persisters tend to be undersocialized. In a review by Turner (1970) of attrition in community colleges, four studies are cited which concluded that the non-continuer lacks a sense of belonging and of identification with the college environment (Eells, 1956; Ellish, 1969; Lynch, 1959; and Matson, 1965).

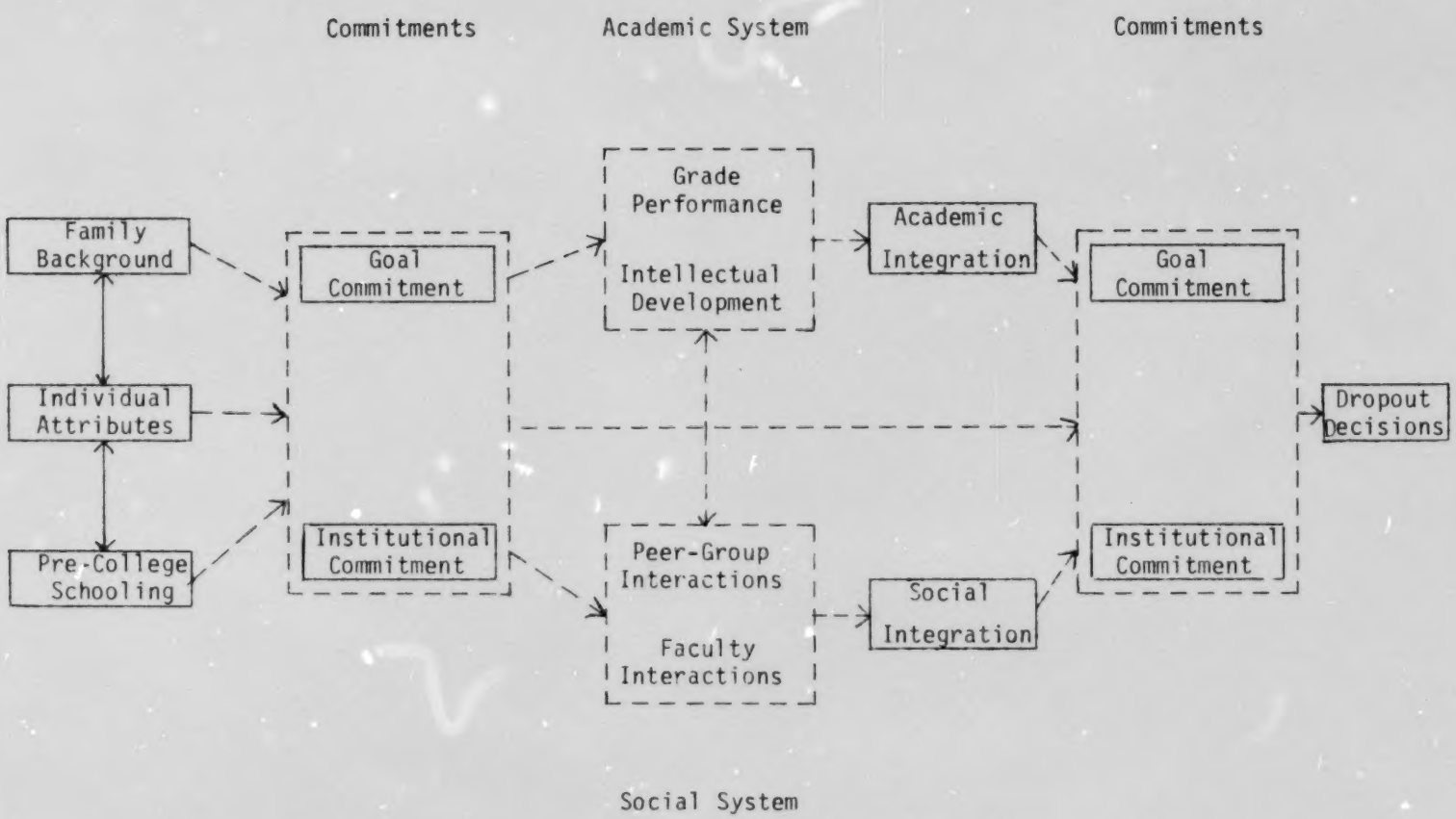


Figure 1. Tinto's model of attrition. (Source: Tinto, V. Dropout from higher education: A theoretical synthesis of recent research. Review of Educational Research, 1975, 45, 89-125.)

Turner also notes that this failure to relate personally with the institution results in feelings of dissatisfaction and irrelevancy.

In a study by Reimanis (1973), the effectiveness of seven different retention programs was tested at Corning Community College in New York. The study was not designed to test Tinto's hypothesis; however, the underlying theme of each program was to help students understand that the college administration and faculty were genuinely interested in their personal and academic growth. The programs focused on factors associated with attrition, i.e., low self-concept of ability, high debilitating anxiety, low internal reinforcement control, and lack of goal and value clarity. Evaluation data for program participants and controls showed these efforts for reducing attrition were more effective than pure remedial programs in academic areas. It appears that programs of this sort may serve to increase the academic and social integration described in Tinto's hypothesis.

A recent proposal to study the attrition problem in the Nebraska college and university system cites the theoretical models of both Spady (1970) and Tinto (1975) in their attempt to address the many variables of attrition and retention (Fuller, 1978). The proposal includes a longitudinal study of the same group of students at different times during the first two years of college. By surveying students, this study will attempt to determine what variations in the actual college experience will have utility as predictors of subsequent college attrition. Aptitudes and background characteristics will also be considered, as well as retrospective reasons for dropping out as assessed by students who eventually withdraw over the two year period. The Nebraska study is currently in progress and the final report will be disseminated during the 1981-82 school year.

Another theory of person-environment fit was formulated by Starr, Betz, and Menne (1972). The hypothesis is that a student attempts to become

congruent across the range of the social and academic press of the institution. Success yields rewards and persistence; failure yields attrition. Flannery and his associates (1973) developed another theory of retention and attrition as congruence or discrepancy in the Miami-Dade Community College study. Attrition was defined as the discrepancy between student expectation and attainment. Strategies were proposed to address the concept and treatment of attrition from a total institutional perspective and directed to the educational satisfaction of specific students.

Terenzini and Pascarella (1979) accurately depict the attrition dilemma as follows:

> It seems clear that the attrition process is a far more complex phenomenon than we have tended to think it is, and certainly the bulk of the dropout research fails to take into account the web-like network of relations to which the studies described here have begun to point. Unless the designs of future studies are sensitive to these considerations, they are unlikely to meet the expectations of either researchers or administrators. At best, they will yield only a partial, oversimplified picture of what seems to be a highly complex set of dynamics (p. 12).

A few other models exist which apply to retention and attrition; however, for the purposes of this study, we will continue to consider student and institutional characteristics which apply to the North Carolina Community College System.

Characteristics of Non-Continuing Students

In addition to efforts to build a model to analyze student attrition, the population of non-persisters who make up the attrition statistics has also been described. Studies pursuing this avenue of research are discussed to present a complete picture of attrition research.

Classification of the non-persister in community colleges can be neatly packaged into three broad areas: demographic categories, academic factors, and non-academic factors. These factors vary greatly from institution to institution.

Demographics

In terms of demographics, Pezzullo's (1978) review of community college's attrition and retention studies since 1973 concludes that part-time students, vocational/technical or business majors, ethnic minorities, older students, women, and Protestants are more likely to drop out. Socioeconomic level was not summarized in his study, nor was educational level of parents, marital status, or employment factors. Religious affiliation was found to be related to attrition in one study. Protestants were characterized as most likely to withdraw, Catholics to persist, and Jews to transfer.

In a review of 16 junior colleges, Turner (1970) found that the typical dropout (and persister) comes from a middle socioeconomic level. Matson (1965) supported Turner's findings.

Other studies describe various findings related to the sex of the student. Gold (1970) reported that males at Los Angeles City College were significantly less persistent in their college studies than females. Astin (1972), however, found that being female was the fourth most important predictor of attrition in college. Monroe (1972) reported that sex was an insignificant factor in college attrition.

Brunner (1978) listed the following characteristics in his study of 2,345 non-continuing students from Delta College, a community college in Michigan: evening student, part-time (five times the attrition rate of full-time), older, married, but neither the sex nor the ethnic status of the student who did not return was significant. In support of Brunner's findings, Aiken (1968) concluded that non-persisting community college students tend to be older, married, and working, in contrast to the traditional or younger college students.

Finally, from their review of the research of non-persisting college students in general (no community college distinction was made), Lenning,

Beal, and Sauer summarize the following demographic characteristics:

1. Age. Some studies indicate student dropout proneness above the average of 22; however, enough conflicting evidence indicates that age is NOT a primary factor.

2. Sex. Some early studies indicate a greater attrition rate for women; however, sex is NOT significantly related as a primary variable.

3. Socioeconomic status. Results of studies are mixed. The "best conclusion may be that students of distinctly disadvantaged status are more prone to attrition but the operating variables may be level of familial aspiration, educational level of parents, personal educational aspirations, and involvement with the college."

4. Ethnicity. Students of Spanish-speaking background were found to be more dropout prone than other ethnic groups regardless of ability. Without controlling for ability, Native Americans and Blacks had a lower probability of graduating than whites. However, once high school ranks and scholastic aptitude were controlled, retention rates for Blacks were significantly higher than for whites.

5. Hometown location and size of high school. Results of studies are mixed and more research is needed to show definite relationships to persistence. Indications are, however, higher retention rates for students from larger high schools in large communities and for students from private schools (1980, pp. 9-10).

Academic Factors

A majority of studies have found that grade point average (GPA) and high school class rank differentiate potential dropouts from persisters (Blanchfield, 1971; Bragg, 1956; Chase, 1970; Little, 1959; Summerskill, 1962; Waller, 1964). Astin (1975) stated that students' past academic record and academic ability were by far the greatest predictive factors of attrition. However, many studies have detected no significant differences in high school GPA or class rank between dropouts and persisters (Blanchfield, 1971; Munger, 1956; Rossmann and Kirk, 1970; Roueche, 1967; Scannell, 1960; Trent and Medsker, 1968; Turner, 1970). Marks (1967) summarizes that scholastic measures are the best predictors of potential attrition available today, but that these predictors are of limited scope and power.

Study habits, according to Lenning et al. (1974), are positively related to academic achievement. They note that poor study habits were found to be a major characteristic of college dropouts in the literature prior to 1963. Demitroff (1974) confirms that dropouts more frequently characterize their study habits as poor or below average than students who remain in college. In a study focusing on high aptitudes, Hill (1966) found that creativity, originality, spontaneity, and independent achievement correlated positvely to persistence.

Non-academic Factors

Iffert (1957), Summerskill (1962), Trent and Medsker (1968) concur that the most prominant reasons given by dropouts as prime factors in their decision to drop out are motivational. Others have stated more generally that predominant reasons for withdrawal were non-academic to a greater degree in two-year than in four-year institutions (Fetters, 1977; Roueche, 1967). In a study of 23 community colleges from northern California (MacMillan and Kester, 1973), one of the primary findings indicated that dropouts were likely to have lower educational aspirations than persisters. Furthermore, college commitment (Hackman and Dysinger, 1970), clear-cut goals with respect to college and career (Angers, 1961; Brunner, 1978; and Nickens, 1976), and certainty of goals (Abel, 1966; Demitroff, 1974) are all important non-academic factors related to persistence. Lenning, Beal, and Sauer summarize the research by stating that the "specificity of a student's vocational and occupational goals may be related to persistence only in technological or vocational programs" (1980, p. 15). This summary also indicates that peer-group influence (Eells, 1956; Matson, 1965) and transfer plans are positively related to attrition and retention. On the other hand, persistence has not been directly related to satisfaction or dissatisfaction with the institution.

Lenning et al. (1974) reviewed the literature prior to and during the 1960's for non-academic correlates of grades, persistence, and academic learning in college. In this monograph, Lenning stated that "scores on personality inventories of all kinds seemed to be more related to persistence in college than to grades" (1974, p. 16). Other variables which held positive relationships with college persistence were maturity in outlook, ability to conform to the group, amount of independence, impulse control or ego function, and overall adjustment. Lenning also found that the degree to which a student could handle free-floating anxiety was positively related to persistence.

The Reimanis (1973) study focused on student personality variables such as internal locus of control, or helping the students feel they are responsible for controlling their fate; psychosocial maturity in terms of trust, autonomy and identity; achievement motivation; and debilitating anxiety. These variables were generally found to correlate positively to persistence.

Financial difficulty is another identified non-academic factor. Iffert (1957) found that students ranked financial difficulties third in importance as a reason for dropping out. Summerskill's (1962) review of the literature found that in 16 out of 21 studies, financial reasons were ranked among the top three most important factors in attrition. Students' perceptions about financial difficulties may cause withdrawals even if the student has apparent adequate financial support, according to Lenning, Beal, and Sauer (1980). In addition, the amount and type of financial aid as well as part-time employment on or off campus is related to persistence. Full-time employment, however, correlates positively with attrition (Lenning, Beal, and Sauer, 1980).

Because the B.E.N. Student Retention Research Project deals with attrition in public community colleges, the issues of public vs. private

institutions, religious affiliation, costs, and housing will not be presented.

Student involvement has had a positive impact on retention in the areas of close relationships with others (Cope, 1978), student-faculty relationships (Pantages and Creedon, 1978), and involvement in the academic life of the institution (Astin, 1975). Pantages and Creedon state that "the degree to which the attitudes and values of the student correspond with those of the institution is also the degree to which the student is likely to persist at that institution" (1978, p. 52). In fact, Pantages and Creedon believe that the theory of the college fit model is one of the best frameworks for understanding attrition. This theory asserts that the student "brings to the college certain skills, attitudes, and expectations, and that the college demands, either directly or indirectly, certain skills and attitudes before it will 'reward' the student (e.g., with passing grades or a degree)" (1978, p. 53). The result, as stated previously, is the degree of persistence. Based on studies from 1955 through 1969, Pantages and Creedon (1978) have summarized the following reasons reported by students for withdrawing. Academic matters are cited most frequently and financial difficulties are cited almost as often. After that, there are a range of reasons that can be classified as motivational such as uncertainty about educational and occupational goals, lack of interest, inability or unwillingness to study, etc. Personal reasons are given next including emotional and adjustment problems. Less frequently mentioned are marriage, student or family illness. Dissatisfaction with college is cited next. The last two reasons for withdrawal are full-time employment and military service. The student's completion of objectives as a reason for withdrawal is absent in the literature. Snyder and Blocker (1970) and McKeithan (1978) reported 30% and 46%, respectively, of non-returning students withdrew because they had completed their objectives.

METHODOLOGY

Research Design

Babbie (1979) stated that research designs serve three general purposes. These are exploration, description, and explanation. He further concluded that a given study can, and most do, have more than one of these purposes. The main interest of this search is explanatory, although space is devoted to descriptive and explorative efforts.

Explanatory research attempts to answer questions concerning why a certain phenomenon exists as opposed to mapping a phenomenon (exploratory) or defining a phenomenon (description). Usually, explanatory research requires a design which can examine the "many different aspects of a situation or event simultaneously" (Babbie, 1979, p. 87). In this research, reasons for student attrition will be explained. The rationale for pursuing the matter accordingly has been established in the previous chapters. That is, the literature demonstrates the logic and feasibility of attempting to explain why students leave the institution prior to completing their intended educational goal.

The static-group comparison survey design which provides for the study of relatively large populations at one point in time to discover comparative incidence, distribution, and interrelations of variables regarding a current situation was the research design used in the study. By comparing the information obtained at the different points within the time frame, it is then possible to "detect what changes have occurred, and throw light on the reasons for their occurance" as shown by Hill (1966, p. 168). It has been

substantiated further that this method of inquiry provides one of the more accurate methods of obtaining data for reliable analysis. Due to the time limitations inherent in this study, however, the longitudinal aspects of analysis were restricted.

The Population

The population for the study was defined as the curriculum student body of the 58 member institutions of the North Carolina Community College System. The size of the system and resulting research constraints (time and money) demanded that a representative proportion of the population be identified for testing the aforementioned research questions. Curriculum students from seven institutions within the population were chosen as the sample. This approach was chosen rather than selecting a random sample of students from all 58 institutions, since the final model developed from this research is designed to be used at the institutional level.

In addition to the three institutions participating in the study, Beaufort County Community College, Edgecombe Technical College, and Nash Technical College, four other institutions were chosen to participate in the research project. All 58 institutions were sent information about the project in July 1980 and were asked to respond if they were interested in participating in the study. By mid-August 1980, 30 institutions had expressed interest in participating. The B.E.N. Project Advisory Committee, consisting of the project staff, a representative from the Department of Community Colleges, and two representatives from each of the three institutions involved, used the following criteria to select the additional participants: geographic location, community college versus technical college/institute classification, and curriculum FTE, based on Fall 1979 FTE reports. The institutions selected were Blue Ridge Technical College (768 FTE), Rockingham Community College (1,305 FTE), Davidson County Community College (2,037 FTE), and Catawba Valley Technical College (2,090 FTE). Although the students in the study were not randomly selected, we assume

that the 13,204 students attending the seven institutions involved in the study are a typical cross-section of students in the North Carolina Community College System.

According to Shearon (1979), the typical curriculum student in the Community College System:

> is most likely to be white, about 25 years of age, female and with an equal probability of being either married or single. She may be considered as head of the household and employed in a white collar occupation. The typical student is employed in a full- or part-time job and earns less than $4.00 per hour. Married curriculum students have an annual income of about $12,000.
>
> This student attends class during the day on the main campus and takes one or two classes per quarter. The typical curriculum student is most likely to be enrolled in a technical program and to have ranked in the middle one-third of her graduating class (pp. 2-3).

Shearon (1979) also found that community colleges and technical institutes in North Carolina tend to enroll a proportional and representative cross-section of male and female students as well as black and white students in curriculum programs. He notes that older adults and adults who have not obtained a high school education tend to be under-represented in the student population. The system also "tends to enroll a higher proportion of low income adults than exist in the state's adult population" (Shearon, p. 5).

Instrumentation

Three instruments were designed to collect data for the study. Each instrument was constructed to solicit information from students at specific points during the student's association with the institution. The "Admissions Questionnaire" (see Appendix A), which was attached to each institutional application for admission, was designed to ascertain the goals of incoming students at the time they filled out an application for admission. The

brief questionnaire was constructed to differentiate between students who entered a program of study and planned to complete it and those students who had short-term goals, such as taking one course to obtain a specific skill.

The second instrument entitled "Currently Enrolled Student Survey" (see Appendix A) was used to obtain data concerning students' attitudes and opinions regarding advisement, counseling, other student services and relationships with faculty, staff, and other students. The level of satisfaction with student activities, financial aid services, academic performance and peer group interaction was reported. The questionnaire also gave students the opportunity to report personal problems, work conflicts, and other problems which might influence students to leave from the institution prior to completing their goals.

The third research instrument, "Survey of Non-continuing Students," (see Appendix A), parallels the "Currently Enrolled Student Survey" to a great extent. Using an open-ended question, students are asked to cite the major reason for not returning to the institution. The survey then lists factors which may have influenced the students' decision and requests the students to check additional reasons that may have influenced their decision not to return. The intent of the "Survey of Non-continuing Students" is to determine which students did not return and to measure the similarities and differences between students who persisted and those who dropped out.

The "Admissions Questionnaire," "Currently Enrolled Student Survey," and "Survey of Non-continuing Students" were reviewed and revised by the project staff and advisory committee. The three questionnaires were also examined by the North Carolina Department of Community Colleges Occupational

Education Research Services Advisory Council at a review meeting at Wilson County Technical Institute held during the fall of 1980. Dr. Leland Cooper, an educator at Appalachian State University who was hired as an outside consultant to the project, also reviewed the three instruments as did Dr. Marcus D. Allred, Vice President for Planning and Research Services, North Carolina Department of Community Colleges.

The consensus of all of these groups was that the three instruments were indeed valid measures of the constructs that they were purported to measure. As the instruments were designed to collect data on a variety of areas, e.g., factual information, attitudes toward the institution, reasons for leaving school, classical estimates of the degree of internal consistency in responses were clearly not appropriate measures of the reliability of the instruments. An appropriate measure would have been test-retest reliability, which would have provided an estimate of the stability of the students' responses over time. The memory limitations of the Radio Shack TRS-80 Model II computer used for the analyses precluded doing this.

However, preliminary statistical analyses were conducted on a random sub-sample of responses for summer term, 1980. These analyses yielded results that did not widely diverge from expectations based upon the results of previous studies. That is, respondents in the sub-sample were not answering the questions in a patently ridiculous manner just for the sake of completing the questionnaire. (The results of the analyses for the total sample confirmed this conclusion.)

Collection of Data

Data were collected using the three survey instruments during the Fall and Winter 1980-81 quarters at Beaufort County Community College, Edgecombe Technical College, and Nash Technical College. At Blue Ridge Technical College, Catawba Valley Technical Institute, Rockingham Community College, and Davidson County Community College, data were collected during the Winter 1980-81 quarter.

Curriculum students completed the "Admissions Questionnaire" at the same time they filled out the application for admission. These questionnaires were collected and the responses entered on a Radio Shack TRS-80 Model II. Registration forms for each student were collected each quarter and sent to Project Co-director David Keim, who was responsible for computer programming, data entry, and analysis. The "Currently Enrolled Student Survey" was distributed to 13,204 curriculum students during the week following the drop/add period at each sampled institution. Up to this point, students' schedules and course enrollments are quite changeable. Students surveyed following the non-penalty drop period are considered to be members of the institution's student body; therefore, they belong to the population selected for study. Students who left the institution prior to the end of drop/add were not included in the sample for this study. While the "Currently Enrolled Student Survey" was administered to students by classroom instructors each quarter, students were asked to respond to the survey only during their first quarter of enrollment. Approximately 11,100 survey forms were returned.

Students who did not enroll for the academic quarter immediately following their first quarter of enrollment were mailed the "Non-continuing Student Survey," a letter (see Appendix A) from the project staff explaining the purpose of the survey, and a postage-paid envelope in which to return the

survey. A computerized printout and three sets of mailing labels were generated for each mailing for students who did not return to the institution. One label was affixed to the mailing envelope, another to the survey itself, and the third to a postcard (see Appendix A) which was mailed one week after the surveys were mailed to remind students to respond to the survey.

There were 5,681 non-continuing surveys mailed, of which 2,092 were returned. Two additional mailings were used to attempt to collect surveys from students who did not respond to the first mailing. In the original model, the project staff had planned to follow-up each student who did not respond to the second mailing by telephone. Because of unexpected delays, a third mailing was made instead of follow-up telephone interviews.

Operational Definitions

Persisters are defined as all students who were currently enrolled during the research project.

Transfers are defined as students whose expressed reason for attending the institution was to prepare for transfer to another institution. These students may or may not persist at the receiving institution.

Short-term goal completers are those students whose expressed reason for attending the institution was to take courses of interest or explore a career area. If the students completed their goal, they were classified as achievers--if not, dropouts. These students have also been referred to as early leavers with marketable skills or "ELMS."

Dropouts are defined as students whose expressed goal on the "Admissions Questionnaire" was to obtain a degree, certificate, or diploma and who did not register for the academic quarter immediately following the quarter in which the student was enrolled.

Achievers include graduates, transfers, and short-term goal completers.

Analysis of Data

Statistical analyses of the data were performed at Nash Technical College. Project Co-director David Keim, Director of Data Processing at Roanoke-Chowan Technical College, was responsible for computer programming efforts. The Model II Statistical Analysis package (Hebbler, 1981) was the software package used to analyze the data. The Statistical Analysis Program is a menu-oriented, disk-based analysis system designed for use on the Radio Shack TRS-80 Model II and is suitable for applications in business, education, and other fields. According to the program manual, "the program can be run with little formal knowledge of data analysis techniques and no knowledge of computer programming" (Hebbler, 1981, p. 1).

The system contains programs for "descriptive statistics, graphic histogram, tabular frequency distribution, one- and two-way analysis of variance, one-way analysis of covariance, correlation matrix (up to nine variables) and graphic data plots, and chi square analysis. The multi-part time series analysis program includes forecasting (with graphics), moving average, and seasonal variation calculations. A multiple regression program allows you to define your regression model from the keyboard and another program helps you select random samples. A program is provided which scores tests, surveys, and questionnaires and can automatically produce an output file which can be used for analysis. Finally, the system contains a data file utility program which makes it easy for you to prepare, update, list, and print your disk data files" (Hebbler, 1981, p. 1). The model and analysis of the data are particularly dependent on the findings generated by multiple regression correlations and chi square analysis.

Limitations of the Study

The following methodological limitations are acknowledged by the researchers:

1. The sample used in the study, while assumed to be representative of the target population, was not a random sample.
2. The concept of a student who "stops-out" (i.e., returns to an institution after an absence of one or more quarters) was not operationally defined. A longitudinal study would be necessary to identify "stop-outs."
3. Telephone or personal exit interviews to follow up students who left the institutions were not conducted for all students.
4. The "Non-continuing Student Survey" was not mailed promptly each quarter to dropouts due to delays.
5. A major premise of the study was to define attrition in terms of students not completing their intended educational goals stated at the time of admission to the institution. Students' goals may change -- this study could not account for variability in initially stated goals. Thus, students' ability to state their actual reason for dropping out may have been impaired.

A Major Concern in The Research

The validity of data based on student input is historically a matter of concern. Specific questions asked include: Do students really understand their motivations for leaving and do they, therefore, cite superficial reasons? Does the complexity of the decision to leave make it difficult for the student to pinpoint one or two reasons for withdrawing? Do students need to protect their self-image by providing socially acceptable reasons for leaving, thus masking more personal reasons? In fact, in the Midstate

American College Testing Program (1978) study on retention, it was found that when looking beyond the socially acceptable reasons for leaving (financial, health, personal), the real reasons for withdrawing were found. Four factors emerged as significant: isolation (loneliness, depression); academic boredom (overlap with high school, uninspired teaching); dissonance (environment, curriculum, people on campus); and irrelevancy (why are we here?).

Nonetheless, student-reported reasons remain the best indicators of problems. Perhaps student input could be made more meaningful and objective if their attitudes and problem areas were noted while they were still in attendance and compared with their attitudes and reported problems after withdrawal.

B.E.N. STUDY FINDINGS

This chapter presents the findings of the B.E.N. study. For emphasis, the research questions and key findings are underlined.

Which students constitute the group labeled "dropouts" as opposed to transfers, graduates, and short-term goal completers?

The distribution of the 11,082 respondents from the seven institutions appears in Table 1. Eight-one percent of all survey respondents were persisters while the remaining 19.0% left school the subsequent term. Dropouts constituted 13.3% of all respondents.

TABLE 1

DISTRIBUTION OF THE TOTAL SAMPLE

CATEGORY	NUMBER	PERCENT
Persisters	8,990	81.1%
Short-term Goal Completers	211	1.9%
Graduates	241	2.2%
Transfers	169	1.5%
Dropouts	1,471	13.3%
TOTAL	11,082	100.0%

The distribution of these 2,092 non-continuing students is shown in Table 2.

TABLE 2

DISTRIBUTION OF NON-CONTINUING STUDENTS

CATEGORY	NUMBER	PERCENT
Short-term Goal Completers	211	10.1%
Graduates	241	11.5%
Transfers	169	8.1%
Dropouts	1,471	70.3%
TOTAL	2,092	100.0%

As can be seen from Table 2, fully 29.7% of these non-continuing students left their institutions after completing a personal goal (i.e., graduation from the community college, completion of courses needed to transfer to another institution, or accomplishment of a short-term education goal).

Table 3 displays the distribution of achievers by institution. The "total" row of the table shows the total proportion of students at each institution who graduated, transferred, or achieved a short-term educational goal. These percentages ranged from 20.4% at Institution VI to 57.8% at Institution VII. Because this latter percentage significantly skews the distribution, the median is clearly a more appropriate measure of central tendency than the mean. The median percentage of students at each of the seven institutions who leave after completing a personal goal is twenty-four percent (24%). Of these students, 8.8% are short-term goal achievers who, heretofore, were labeled as "dropouts."

What is the percentage of students who did not complete their intended educational goals?

As shown in Table 1, 13.3% of the respondents did not achieve their

educational goals. As indicated in Table 2, this group ("dropouts") constitutes 70.3% of the non-continuing students.

TABLE 3

DISTRIBUTION OF ACHIEVERS BY INSTITUTION (IN %)

	Institution							Median
	I	II	III	IV	V	VI	VII	%
Short-term Goal Completers	7.5	8.8	14.0	11.0	8.1	1.9	18.9	8.8
Graduates	6.8	6.4	6.1	8.7	8.6	7.2	33.3	7.2
Transfers	15.6	8.8	5.0	3.8	4.1	11.3	5.4	5.4
TOTAL %	29.9	24.0	25.1	23.5	20.8	20.4	57.8	24.0

What differences are there between persisters, "dropouts," and those who completed their educational goals?

Table 4 presents comparisons among persisters, dropouts, and completers. Approximately 80% of each of the three groups worked while in school. However, a much larger percentage of dropouts (65%) were full-time workers as compared to persisters (35%) or achievers (39%).

The attitude held by all three groups concerning grades showed that approximately equal percentages of each group felt that their grades were as good as expected, better than expected, or worse than expected. Percentages of dropouts who had been on academic warning or suspension were slightly higher than in the other two groups. Consistent with the last finding, a much larger percentage of persisters (49%) and achievers (39%) reported having been on either the Dean's List or the Honor Roll than did dropouts (22%).

Congruent with the findings other studies cited earlier, dropout students felt more strongly than did the other two groups that classes did

TABLE 4

COMPARISON OF CHARACTERISTICS OF DROPOUTS, PERSISTERS, AND ACHIEVERS

PERCENTAGE COMPARISONS AMONG DROPOUTS, PERSISTERS, AND ACHIEVERS			
CHARACTERISTIC	DROPOUTS	PERSIST.	ACHIEVERS
DO YOU FEEL YOU HAD ENOUGH KNOWLEDGE ABOUT THIS INSTITUTION TO MAKE A GOOD CHOICE OF PROGRAMS WHEN YOU ENROLLED?			
YES:	88.65	86.18	86.17
NO:	10.64	13.82	13.83
DO YOU PLAN TO TAKE MORE COURSES AT THIS INSTITUTION IN THE FUTURE?			
YES:	49.65	21.41	39.61
POSSIBLY:	43.36	60.21	47.45
NO:	6.99	18.38	12.94
IS THIS THE FIRST TIME YOU HAVE DROPPED OUT OF THIS SCHOOL?			
YES:	70.63	59.16	87.62
NO:	29.37	40.84	12.38
DID YOU WORK LAST QUARTER?			
YES (FULL TIME):	65.49	34.81	39.44
YES (PART TIME):	16.90	46.55	37.85
NO:	17.61	18.64	22.71
DID YOU FEEL UNCOMFORTABLE IN ANY OF CLASSES BECAUSE OF YOUR SEX?			
YES:	1.39	3.25	.76
NO:	98.61	96.75	99.24
GENERALLY SPEAKING, HOW WERE YOUR GRADES WHILE YOU ATTENDED?			
MY GRADES WERE AS GOOD AS EXPECTED	58.87	63.36	59.24
MY GRADES WERE BETTER THAN EXPECTED	20.97	22.36	26.05
MY GRADES WERE WORSE THAN EXPECTED	20.16	14.01	14.71
WERE YOU EVER ON ACADEMIC PROBATION, WARNING, OR SUSPENSION?			
YES:	8.45	6.06	5.12
NO:	91.55	93.94	94.88
WERE YOU EVER ON THE DEAN'S LIST OR HONOR ROLL?			
YES:	21.90	48.95	38.80
NO:	78.10	51.05	61.20

Comparison of Characteristics of Dropouts, Persisters, and Achievers

TABLE 4 (continued)

	DROPOUTS	PERSIST.	ACHIEVERS
SINCE YOU BEGAN SCHOOL, DID CLASSES MEET YOUR EXPECTATIONS?			
YES:	36.21	47.40	55.38
TO SOME EXTENT:	48.28	47.15	39.48
NO:	15.52	5.45	4.78
IF YOU WERE HERE ONE COMPLETE QUARTER OR MORE, HOW WOULD YOU GENERALLY RATE THE FACULTY MEMBERS WHO TAUGHT YOU?			
EXCELLENT:	26.72	26.54	30.96
ABOVE AVERAGE:	32.82	44.30	44.35
AVERAGE:	38.17	25.75	22.18
BELOW AVERAGE:	0.76	2.73	2.09
POOR:	1.53	.68	.42
IN YOUR OPINION, HOW MANY INSTRUCTORS SHOWED A PERSONAL INTEREST IN YOU AND OTHER STUDENTS?			
NONE:	4.23	.63	1.21
A FEW:	21.13	20.98	20.56
HALF:	4.93	12.96	11.29
MAJORITY:	33.10	53.00	48.79
ALL:	36.67	12.43	18.15
DO YOU FEEL THE COLLEGE ADMISTRATION AND STAFF (NON FACULTY) HAD A PERSONAL INTEREST IN YOU?			
YES:	36.21	30.53	40.48
TO SOME EXTENT:	48.28	50.48	42.91
NO:	15.52	18.99	16.60
DO YOU KNOW WHO YOUR FACULTY ADVISOR WAS?			
YES:	65.22	50.33	87.50
UNSURE:	10.14	28.10	4.44
NO:	24.64	21.57	8.06
WHAT KIND OF HELP DID YOU GET FROM YOUR FACULTY ADVISOR?			
LITTLE TO NONE:	36.15	73.32	27.76
COURSE PLANNING ONLY:	18.46	18.64	23.67
COURSE PLANNING AND GUIDANCE:	45.38	8.04	48.57
DID YOU FEEL THE ASSISTANCE YOU RECEIVED FROM YOUR FACULTY ADVISOR WAS SATISFACTORY?			
YES:	68.85	23.08	73.31
TO SOME EXTENT:	20.00	61.55	18.64
NO:	11.11	15.37	8.05

TABLE 4 (continued)

	DROPOUTS	PERSIST.	ACHIEVERS
PLEASE INDICATE YOUR SATISFACTION WITH THE FOLLOWING SERVICES/ACTIVITIES			
ADMISSIONS:			
SATISFIED	96.67	95.18	95.18
DISSATISFIED	3.33	4.82	4.82
CAREER INFORMATION			
SATISFIED	87.76	88.81	88.80
DISSATISFIED	12.24	11.19	11.20
COUNSELING			
SATISFIED	84.00	91.34	92.23
DISSATISFIED	16.00	8.66	7.77
FINANCIAL AID			
SATISFIED	82.76	92.32	92.28
DISSATISFIED	17.24	7.68	7.72
HEALTH			
SATISFIED	100.00	90.90	91.10
DISSATISFIED	0.00	9.09	8.90
LIBRARY			
SATISFIED	97.53	96.67	96.70
DISSATISFIED	2.47	3.33	3.30
LEARNING LABORATORY			
SATISFIED	92.50	96.93	97.50
DISSATISFIED	7.50	3.07	2.50
REGISTRATION			
SATISFIED	96.80	74.99	75.00
DISSATISFIED	3.20	25.01	25.00
TUTORIAL AND STUDY SKILLS			
SATISFIED	85.19	98.55	93.88
DISSATISFIED	14.81	1.45	6.12
VETERANS'			
SATISFIED	78.26	98.78	81.08
DISSATISFIED	21.74	1.22	18.92
JOB PLACEMENT			
SATISFIED	50.00	76.65	74.71
DISSATISFIED	50.00	23.35	25.29
STUDENT ACTIVITIES			
SATISFIED	92.68	73.15	72.77
DISSATISFIED	7.32	26.85	27.33
OW WOULD YOU RATE THE FOLLOWING			
TIME COURSE WERE OFFERED			
EXCELLENT	32.62	22.17	26.09
ADEQUATE	59.57	63.24	59.13
UNSATISFACTORY	7.80	14.59	14.78
VARIETY OF PROGRAMS OFFERED			
EXCELLENT	27.94	35.92	39.30
ADEQUATE	66.91	55.50	57.38
UNSATISFACTORY	5.15	8.58	3.31
VARIETY OF COURSE OFFERED			
EXCELLENT	30.43	13.50	35.92
ADEQUATE	57.25	42.27	55.51
UNSATISFACTORY	12.32	44.23	8.57

TABLE 4 (continued)

	DROPOUTS	PERSIST.	ACHIEVERS
WHICH OF THE FOLLOWING STATEMENTS WOULD BEST DESCRIBE YOUR RELATIONSHIP WITH OTHER STUDENTS? THEY WERE			
UNIMPORTANT PART OF MY SCHOOL EXPERIENCE	26.43	13.76	13.77
FAIRLY IMPORTANT PART OF MY SCHOOL EXPERIENCE	52.14	44.14	43.90
MAJOR PART OF MY SCHOOL EXPERIENCE	21.43	42.10	42.33
STUDENTS OFTEN HAVE PROBLEMS IN THE FOLLOWING AREAS. PLEASE MARK THE COLUMN THAT BEST DESCRIBES YOUR FEELINGS			
MANAGING MY TIME			
PROBLEM	29.13	27.23	27.23
NOT A PROBLEM	70.83	72.77	72.77
HANDLING MY COURSES			
PROBLEM	15.65	10.31	10.30
NOT A PROBLEM	84.35	89.69	89.70
TRYING TO FIND MYSELF			
PROBLEM	17.21	32.92	13.68
NOT A PROBLEM	82.79	67.08	86.32
MAKING CAREER DECISIONS			
PROBLEM	33.33	31.14	31.14
NOT A PROBLEM	66.67	68.86	68.86
PARENT/FAMILY RELATIONSHIPS			
PROBLEM	14.52	3.42	10.42
NOT A PROBLEM	85.48	96.58	89.58
SCHOOL CONFLICTS			
PROBLEM	7.94	3.79	3.78
NOT A PROBLEM	92.06	96.21	96.22
SOCIAL RELATIONS			
PROBLEM	2.42	3.36	3.03
NOT A PROBLEM	97.58	96.64	96.97
COED RELATIONSHIPS			
PROBLEM	4.72	4.68	4.68
NOT A PROBLEM	95.28	95.32	95.32
FINANCES			
PROBLEM	34.17	22.36	23.72
NOT A PROBLEM	65.83	77.64	76.28
TRANSPORTATION			
PROBLEM	16.54	7.50	7.50
NOT A PROBLEM	83.46	92.50	92.50
HEALTH-MEDICAL			
PROBLEM	3.36	9.54	2.13
NOT A PROBLEM	96.64	90.46	97.87

*On the persister survey instrument, the question read "Have you ever dropped out of school before?"

not meet their expectations. When asked about their attitudes toward faculty, the dropout group did not rate the faculty members as highly as did the other two groups.

The viewpoint of dropouts concerning their degree of satisfaction with student services was similar to the other two groups in several cases; however, dropouts showed considerably less satisfaction with counseling services, financial aid, tutorial services, veteran's aid, and job placement services.

Three times as many students in the dropout group did not know who their faculty advisors were as compared to achievers.

Dropouts also seemed to have more problems than other students. In particular, they indicated higher problem levels in dealing with course-related matters, parent and family relationships, finances, and transportation.

Why do students leave the institution prior to completing their intended educational goals?

Table 5 displays the reasons given for leaving school. Work related reasons rank highest for students from all institutions. The category labeled "work" was used to classify students who left school to go to work, whereas the category labeled "work conflict" identifies students who held jobs while enrolled. Financial difficulties also rank among the more frequent reasons for leaving school. Transportation problems, moving away from the institution, and personal reasons were also reported as reasons for not returning. Other reasons such as dissatisfaction with the institution, academic difficulty, available time, and changing goals ranked at the bottom of the list of reasons for dropping out of school.

Does the methodology in the study indicate that it is sensitive enough to distinguish among patterns of responses of individual institutions?

If the questionnaire was indeed sensitive to local (i.e., institutional) variations in reasons for dropping out, then the percentage of students at

TABLE 5

REASONS FOR LEAVING BY INSTITUTION
(GIVEN AS PERCENTAGES)

REASON FOR LEAVING	INSTITUTION I	II	III	IV	V	VI	VII	TOTAL
GRADUATES	6.8	6.4	6.1	8.7	8.6	7.2	33.5	11.5
SHORT TERM COMPLETERS	7.5	8.8	14.0	11.0	8.1	1.9	18.9	10.1
TRANSFERRED	15.6	8.8	5.0	3.8	4.1	11.3	5.4	8.1
DROPOUT CATEGORIES (CLASSIFIED BY REASON):								
STOP OUT	10.4	13.2	22.3	11.5	8.1	9.1	6.0	11.8
WORK	19.5	14.9	9.4	17.5	16.7	12.6	6.3	13.2
FINANCIAL	14.0	13.2	12.7	6.0	16.7	10.7	4.9	11.1
WORK CONFLICT	6.5	7.1	4.7	3.8	9.5	6.7	6.9	6.5
PERSONAL	2.3	5.4	4.1	7.7	8.1	8.3	5.2	5.7
COURSES NOT OFFERED	3.9	8.1	0.6	6.0	3.6	7.5	0.8	4.2
TRANSPORT	3.9	3.0	6.3	1.1	7.2	5.1	1.4	4.1
MOVED	5.2	1.4	1.4	7.1	2.3	7.5	2.3	3.8
MEDICAL	2.6	2.7	3.6	2.7	2.3	2.7	3.2	2.9
DISSATISFIED	1.6	3.0	3.0	4.4	0.5	1.9	0.9	2.1
TIME	0.0	1.7	3.0	3.8	2.3	3.5	0.0	2.0
ACADEMIC	0.0	0.0	2.5	1.6	0.5	1.3	1.7	1.1
MILITARY	0.0	1.4	0.3	1.6	0.5	1.9	1.1	1.0
CHANGED GOAL	0.0	1.0	1.1	1.6	1.0	0.8	1.4	1.0
TOTALS *	99.8	100.1	100.1	99.9	100.1	100.0	99.9	100.1

NOTE THAT VARIATIONS FROM TOTALS BEING EXACTLY 100.0 PERCENT ARE DUE TO THE ROUNDING OF NUMBERS

each institution who reported a particular reason for leaving school should significantly differ from the aggregate or "total" responses from the seven institutions.

A chi-square goodness of fit test was performed in order to test this hypothesis. The expected frequencies based upon the null hypothesis of no difference between each institution's responses and the aggregate response were generated as follows: The number of students in each institutional subsample was multiplied by the percentage of the total sample (i.e., all institutions) reporting that particular reason for dropping out. Thus, for example, if 30% of all students reported "work" as a reason for leaving school, and the sample for Institution X consisted of 1,000 students, the expected frequency for Institution X was calculated to be .30 * 1,000 or 300 students.

The results of the chi-square analyses are displayed in Tables 6A-G. In each of the seven institutions sampled, the observed frequencies significantly differed from the expected frequencies, thus, demonstrating the sensitivity of the questionnaire instrument to local conditions. It should be noted, however, that at some institutions, only one or two reasons for leaving school accounted for the preponderance of the deviations from the expected frequencies (see Tables 6A-G).

TABLE 6A

CHI-SQUARE ANALYSIS OF REPORTED REASONS FOR LEAVING SCHOOL

* * * INSTITUTION I * * *

CHI-SQUARE ANALYSIS OF DROPOUTS

REASON	FREQUENCIES OBSERVED	FREQUENCIES EXPECTED
STOP OUT	32	36
WORK RELATED	80	60
FINANCIAL	55	46
PERSONAL	7	20
COURSES NOT OFFERED	12	13
MOVED (INCLUDES MILITARY)	16	15
MEDICAL	8	9
DISSATISFIED	5	6
ACADEMIC DIFF (STUDY TIME)	0	10

DEGR. OF FREEDOM: 8

CHI-SQUARE: 27.7433 PROBABILITY: 0.0008

TABLE 6B

CHI-SQUARE ANALYSIS OF REPORTED REASONS FOR LEAVING SCHOOL

* * * INSTITUTION II * * *

CHI-SQUARE ANALYSIS OF DROPOUTS

REASON	FREQUENCIES OBSERVED	EXPECTED
STOP OUT	39	38
WORK RELATED	65	63
FINANCIAL	48	49
PERSONAL	19	21
COURSES NOT OFFERED	24	13
MOVED (INCLUDES MILITARY)	8	15
MEDICAL	8	9
DISSATISFIED	9	7
ACADEMIC DIFF (STUDY TIME)	5	10
DEGR. OF FREEDOM: 8		
CHI-SQUARE: 16.0576	PROBABILITY: 0.0423	

TABLE 6C

CHI-SQUARE ANALYSIS OF REPORTED REASONS FOR LEAVING SCHOOL

* * * INSTITUTION III * * *

CHI-SQUARE ANALYSIS OF DROPOUTS

REASON	FREQUENCIES OBSERVED	FREQUENCIES EXPECTED
STOP OUT	81	45
WORK RELATED	51	76
FINANCIAL	69	59
PERSONAL	19	26
COURSES NOT OFFERED	2	16
MOVED (INCLUDES MILITARY)	6	19
MEDICAL	13	11
DISSATISFIED	11	8
ACADEMIC DIFF (STUDY TIME)	20	12
DEGR. OF FREEDOM: 8		

CHI-SQUARE: 68.5699 PROBABILITY: 0.0000

TABLE 6D

CHI-SQUARE ANALYSIS OF REPORTED REASONS FOR LEAVING SCHOOL

* * * INSTITUTION IV * * *

CHI-SQUARE ANALYSIS OF DROPOUTS

REASON	FREQUENCIES OBSERVED	EXPECTED
STOP OUT	21	23
WORK RELATED	39	39
FINANCIAL	13	30
FERSONAL	17	13
COURSES NOT OFFERED	11	9
MOVED (INCLUDES MILITARY)	16	10
MEDICAL	5	6
DISSATISFIED	8	4
ACADEMIC DIFF (STUDY TIME)	10	6
DEGR. OF FREEDOM: 8		
CHI-SQUARE: 21.9158	PROBABILITY: 0.0057	

TABLE 6E

CHI-SQUARE ANALYSIS OF REPORTED REASONS FOR LEAVING SCHOOL

* * * INSTITUTION V * * *

CHI-SQUARE ANALYSIS OF DROPOUTS

REASON	FREQUENCIES OBSERVED	EXPECTED
STOP OUT	18	29
WORK RELATED	58	49
FINANCIAL	53	38
PERSONAL	20	17
COURSES NOT OFFERED	8	11
MOVED (INCLUDES MILITARY)	6	12
MEDICAL	5	7
DISSATISFIED	1	4
ACADEMIC DIFF (STUDY TIME)	6	8
DEGR. OF FREEDOM: 8		
CHI-SQUARE: 19.4156	PROBABILITY: 0.0134	

TABLE 6F

CHI-SQUARE ANALYSIS OF REPORTED REASONS FOR LEAVING SCHOOL

* * * INSTITUTION VI * * *

CHI-SQUARE ANALYSIS OF DROPOUTS

REASON	FREQUENCIES OBSERVED	FREQUENCIES EXPECTED
STOP OUT	34	50
WORK RELATED	72	83
FINANCIAL	59	64
PERSONAL	34	28
COURSES NOT OFFERED	28	18
MOVED (INCLUDES MILITARY)	35	20
MEDICAL	10	12
DISSATISFIED	7	9
ACADEMIC DIFF (STUDY TIME)	18	13
DEGR. OF FREEDOM: 8		
CHI-SQUARE: 27.7606	PROBABILITY: 0.0008	

TABLE 6G

CHI-SQUARE ANALYSIS OF REPORTED REASONS FOR LEAVING SCHOOL

* * * INSTITUTION VII * * *

CHI-SQUARE ANALYSIS OF DROPOUTS

REASON	FREQUENCIES OBSERVED	FREQUENCIES EXPECTED
STOP OUT	21	25
WORK RELATED	46	42
FINANCIAL	22	31
PERSONAL	23	14
COURSES NOT OFFERED	3	9
MOVED (INCLUDES MILITARY)	12	10
MEDICAL	11	6
DISSATISFIED	3	4
ACADEMIC DIFF (STUDY TIME)	6	6

DEGR. OF FREEDOM: 8

CHI-SQUARE: 18.2362 PROBABILITY: 0.0202

Summary of Major Research Findings

. A mean of 29.7% and a median of 24% of non-continuing students are graduates, transfers, or short-term goal completers.

. Not counting short-term goal completers as "dropouts" reduces the so-called "attrition rate" in the total sample by approximately 13%.

. Students who work full-time are significantly more likely to drop out than students who work only part-time.

. Dropout students felt more strongly that their classes "did not meet their expectations."

. Dropout students rated their instructors lower than did persisters and achievers.

. Three times as many dropout students as achievers did not know the names of their faculty advisors.

. In agreement with the results of previous research studies, dropout students most frequently cited the following reasons for leaving school: work, financial, transportation, and personal reasons.

. The results of the chi-square analyses, comparing the responses from each institution to the aggregate pattern of responses, demonstrate the sensitivity of one survey questionnaire to local variations in responses.

A MODEL FOR DETERMINING STUDENT RETENTION

Based on the experience with this research effort, the following procedures are recommended:

1. Most students who enter the institution must complete an admissions application. On this application or on a supplement, the student should provide information concerning his/her purpose for attending the institution. From this information, the student can be classified as a short-term-goal-oriented student, a transfer student, or a candidate for a degree or diploma.

2. Students who complete their goal are classified as achievers regardless of the length of time they attend or the number of credits received.

3. Students who do not complete their goal are classified as dropouts regardless of other factors.

4. Students' goals are subject to change. Each quarter, using a notation on the registration form, the institution should ask the students to reevaluate their goals; and then reclassify the students as necessary.

5. Persisters are currently enrolled students who will eventually become achievers or dropouts.

6. Data should be collected through exit interviews. If the student cannot have an exit interview, telephone interviews are preferred to mailings.

7. Data should be collected from graduates and transfers also through personal interviews, when the student drops out during the middle of the term. The data can be collected when the student applies for graduation or requests a transcript for transfer purposes. Again, if the student does not have an exit interview, telephone contact and a mailed questionnaire, in that order, should be initiated.

8. Students who do not return the following quarter and short-term-goal-oriented students should be contacted by phone. If a telephone interview cannot be conducted, a questionnaire should be mailed to the student.

9. When mailed surveys are used, a reminder should be sent two or three days later to reinforce the institution's need for student input. A second mailing is also recommended when no response is received.

10. Data from persisters should be collected once a year during Fall Quarter. The data can be collected through classrooms or through an administrative office. The former is more efficient and effective.

11. Data from the three groups contain a valuable pool of evaluative data, and should, if possible, be comparatively analyzed.

MAJOR RECOMMENDATIONS

1. Data are commonly collected from students through the mail, telephone interviews and personal interviews. Mailings should only be used after personal interviews and telephone interviews have failed to produce results. Personal interviews, in the form of exit interviews are the preferred method. Exit interviews have major inherent advantages which include:

    (1) information is collected immediately after the decision to withdraw is made;

    (2) the institution's representative can ask the withdrawing student to elaborate or explain points of concern;

    (3) individuals are more likely to present correct information in a personal interview as opposed to a written format or telephone communication.

    Where personal interviews are not possible, telephone interviews are preferred to the collection of data via mailings.

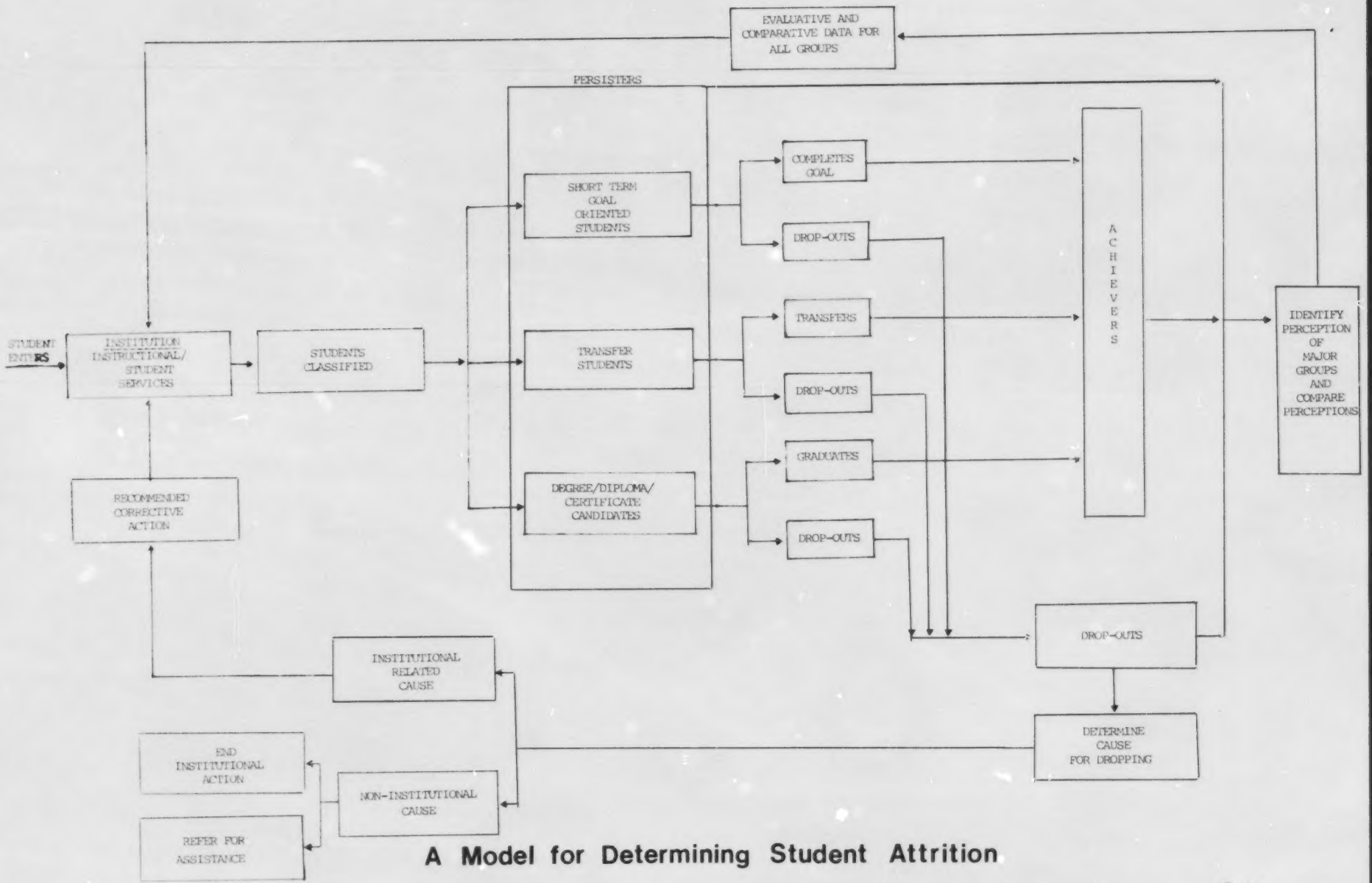
2. Data should be collected on an annual basis. This method will promote comparison in drops quarter to quarter and year to year. Dropout trends should quickly surface. Also, the student who "stops-out" can be tracked and counted properly.

3. The length of the questionnaire should be reviewed before adopting it at the local level. Those questions which are not applicable to the local situation should be dropped. After adoption and use, those questions exhibiting high iter-item correlation should be combined to promote brevity.

4. Regardless of the method of data collection, the collection process should be instituted as quickly as possible after the drops begin. The validity of data is generally enhanced by timely collection.

5. A system for analyzing data should be an integral part of any model adopted at the local level.

6. There must be an institutional commitment to reduce the dropout rate before an adequate model can be operationalized.



A Model for Determining Student Attrition

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ADMISSIONS QUESTIONNAIRE

Check the major reason for attending this institution. Pleace check ONE only.

_____ a. Obtain a degree, certificate, or diploma.

_____ b. Prepare for transfer to another institution.

_____ c. Take courses of interest.

_____ d. Explore a career area.

_____ e. Receive financial assistance such as VA benefits, BEOG, social security, or CETA.

_____ f. Other _____

If you plan to receive a degree, certificate, or diploma have you decided upon a major (curriculum)?

_____ a. Yes, I have made a firm choice.

_____ b. Yes, but I may change it.

_____ c. No, I am undecided at this time.

B. E. N.

STUDENT RETENTION RESEARCH PROJECT

CURRENTLY ENROLLED STUDENT SURVEY

This survey is part of a research project being conducted by Beaufort County Community College, Edgecombe Technical Institute, and Nash Technical Institute on behalf of the Department of Community Colleges (B.E.N. Project). In order to understand and better serve our students, we are asking you to assist in the gathering of information concerning your reasons for attending this institution and some idea of your experiences and attitudes while you are here.

Your social security number will be used only to identify such characteristics as sex, race, and employment status. Please be assured that the information on this questionnaire will be kept completely confidential. Your social security number will be used only to place your responses on computer for statistical analysis.

Social Security No. _____/_____/_____

1. This is my _____ quarter at this institution. (1st, 2nd, 3rd, etc.)

2. How many hours per week are you in class (contact hours?) _____

3. What is your travel distance (one way) to school each day?

   [ ] 1 - 10 miles
   [ ] 11 - 20 miles
   [ ] 21 - 30 miles
   [ ] over 30 miles

4. How many trips do you make to school each week?

   [ ] one
   [ ] two
   [ ] three
   [ ] four
   [ ] five
   [ ] more than five

5. Does your employer provide financial support/encouragement for going to school?

   [ ] yes
   [ ] no
   [ ] does not apply

6. If yes to number 5, please specify; if no, go to number 7.

   [ ] tuition
   [ ] raise/promotion
   [ ] time off for school with pay
   [ ] other

7. Who influenced you to attend this institution? (Check all that apply.)

   [ ] friends
   [ ] parents
   [ ] counselor
   [ ] other
   [ ] employer
   [ ] advertising
   [ ] self

8. Who pays for the majority of your education?

   [ ] you or spouse
   [ ] parents
   [ ] veteran's benefits
   [ ] grant, (BEOG), loans or scholarships
   [ ] social security
   [ ] employer
   [ ] other

9. Did you enroll to obtain a degree, certificate or diploma?

   [ ] yes
   [ ] yes, but may change
   [ ] no, undecided

   If no, go to number 11.

10. If yes to number 9, have you decided upon a major (curriculum/program)?

    [ ] yes
    [ ] no
    [ ] no, undecided

    If no, go to number 12.

11. If no, to number 9, which of the following best describes your reason(s) for attending? (check ONE only)

[ ] Prepare for transfer to another institution.
[ ] Get a better job or promotion.
[ ] Take courses of interest.
[ ] Explore a career area.
[ ] Receive financial assistance such as VA benefits,
[ ] BEOG, social security or CETA.
[ ] Other

12. Do you feel you had enough knowledge about this institution to make a good choice of programs (or courses) when you enrolled?

[ ] yes
[ ] no, (please explain)

13. Since you first enrolled, which of the following applies to you?

[ ] My grades have been as good as I expected.
[ ] My grades have been better than I expected.
[ ] My grades have been worse than I wanted them to be.
[ ] I have not received enough/any grades to answer.

14. Have you ever been on academic probation, warning, or suspension?

[ ] yes
[ ] no

15. Have you ever been on the dean's list or honor roll?

[ ] yes
[ ] no

16. Since you began school, have the classes met your expectations? (check one)

[ ] yes
[ ] to some extent
[ ] no, (please explain)

17. If you have been here one complete quarter or more, how would you generally rate the faculty members who have taught you?

[ ] excellent
[ ] above average
[ ] average
[ ] below average
[ ] poor

18. In your opinion, how many of your instructors have shown a personal interest in you and other students?

[ ] none
[ ] a few
[ ] half
[ ] majority
[ ] all

19. Do you feel the college administration and staff (non-faculty) have a personal interest in you?

[ ] yes
[ ] to some extent
[ ] no
[ ] no opinion

20. Do you know who your faculty advisor is?

[ ] yes
[ ] no
[ ] unsure

21. What kind of help do you get from your faculty advisor?

[ ] little to none (signature on registration day)
[ ] course planning only
[ ] course planning and personal guidance

22. Do you feel the assistance you receive from your faculty advisor is satisfactory?

[ ] yes
[ ] to some extent
[ ] no

23. Please indicate your satisfaction with the following services/activities. If you have not had the opportunity or need to use them, please mark "Never Used Service." Place a check (✓) in the appropriate column.

	Satisfied	Dissatisfied	Never Used Service
Admissions	[ ]	[ ]	[ ]
Career information services	[ ]	[ ]	[ ]
Counseling services	[ ]	[ ]	[ ]
Financial Aid	[ ]	[ ]	[ ]
Health services	[ ]	[ ]	[ ]
Library services	[ ]	[ ]	[ ]
Learning Laboratory	[ ]	[ ]	[ ]
Registration	[ ]	[ ]	[ ]
Time courses are offered	[ ]	[ ]	[ ]
Tutorial & study skills services	[ ]	[ ]	[ ]
Variety of programs offered	[ ]	[ ]	[ ]
Variety of courses offered	[ ]	[ ]	[ ]
Veterans' services	[ ]	[ ]	[ ]
Job placement	[ ]	[ ]	[ ]
Student activities	[ ]	[ ]	[ ]

Please comment on any of the above with which you were dissatisfied.

_____

_____

_____

24. Which of the following statements best describes your relationship with other students at this school? They have been

[ ] an unimportant part of my school experience.
[ ] a fairly important part of my school experience.
[ ] a major part of my school experience.

25. Students often have problems in the following areas. Please mark the column that best describes your feelings.

	Problem	Not A Problem	Cannot Tell Yet
Managing my time	[ ]	[ ]	[ ]
Handling the content of my courses	[ ]	[ ]	[ ]
Trying to find myself in the sense of personal meaning and identity	[ ]	[ ]	[ ]
Making decisions about my career	[ ]	[ ]	[ ]
Some aspect of parent/family relations	[ ]	[ ]	[ ]
School related personality conflicts	[ ]	[ ]	[ ]
Social relations	[ ]	[ ]	[ ]
My relationships with persons of the opposite sex	[ ]	[ ]	[ ]
Finances	[ ]	[ ]	[ ]
Transportation to and from school	[ ]	[ ]	[ ]
Health-medical	[ ]	[ ]	[ ]
Other (please specify)	[ ]	[ ]	[ ]

26. Please check any of the activities your school has in which you have participated. Mark all that apply to you.

[ ] Clubs and organizations
[ ] Student Government Association (SGA)
[ ] Dances
[ ] Intramural sports
[ ] Luncheons/dinners
[ ] Cultural programs
[ ] "Field" or "Activities" Day
[ ] Off campus trips/conventions
[ ] Special holiday activities
[ ] Concerts
[ ] Other (please describe)

B. E. N.

STUDENT RETENTION RESEARCH PROJECT

SURVEY OF NONCONTINUING STUDENTS

Social Security No.

_ _ _ _ _ _ _ _ _

1. What is the main reason why you did not register this quarter? _____

_____

_____

2. Check any of the following which also affected your decision not to return.

[ ] finished all the courses I wanted to take
[ ] changed my educational/vocational goals
[ ] transferred to another institution
[ ] course closed or cancelled
[ ] course hours conflicted with work hours
[ ] course needed not offered
[ ] preferred to work
[ ] have financial problems (contact your financial aid office)
[ ] academic difficulties
[ ] courses were too easy
[ ] VA benefits exhausted
[ ] entered military service
[ ] moved to another area
[ ] transportation - high gas prices
[ ] have personal reasons (pregnancy, childbirth, death, illness, etc.)
[ ] dissatisfied with courses or institute in general
[ ] other (please specify) _____

_____

3. Do you feel you had enough knowledge about this institution to make a good choice of programs (or courses) when you first enrolled?

[ ] yes
[ ] no (please explain) _____

_____

4. Do you plan to take more courses at this institution in the future?

[ ] yes
[ ] no
[ ] possibly

5. Is this the first time you have dropped out of this school?

[ ] yes
[ ] no, if no, how many times? _____

6. Did you work last quarter? (check one)

[ ] yes, full time (40 or more hours per week)
[ ] yes, part time (fewer than 40 hours per week)
[ ] no

7. Did you feel uncomfortable in any of your classes because of your sex?

[ ] yes; was this a reason for not returning? _____
[ ] no

8. Generally speaking, how were your grades while you attended?

[ ] My grades were as good as I expected.
[ ] My grades were better than I expected.
[ ] My grades were worse than I wanted them to be.
[ ] I did not receive enough/any grades to answer.

9. Were you ever on academic probation, warning, or suspension?

[ ] yes
[ ] no

10. Were you ever on the dean's list or honor roll?

[ ] yes
[ ] no

11. Since you began school, did the classes meet your expectations? (check one)

[ ] yes
[ ] to some extent
[ ] no (please explain)

_____

_____

_____

12. If you were here one complete quarter or more, how would you generally rate the faculty members who taught you?

[ ] excellent
[ ] above average
[ ] average
[ ] below average
[ ] poor

13. In your opinion, how many of your instructors showed a personal interest in you and other students?

[ ] none
[ ] a few
[ ] half
[ ] majority
[ ] all

14. Do you feel the college administration and staff (non faculty) had a personal interest in you?

[ ] yes [ ] no
[ ] to some extent [ ] no opinion

15. Do you know who your faculty advisor was?

[ ] yes [ ] unsure
[ ] no

16. What kind of help did you get from your faculty advisor?

[ ] little to none (signature on registration day)
[ ] course planning only
[ ] course planning and personal guidance

17. Did you feel the assistance you received from your faculty advisor was satisfactory?

[ ] yes
[ ] to some extent
[ ] no

18. Please indicate your satisfaction with the following services/activities. If you have not had the opportunity or need to use them, please mark Never Used Service. Place a (✓) in the appropriate column.

	Satis fied	Dis satis fied	Never used Service
Admissions	[ ]	[ ]	[ ]
Career Information services	[ ]	[ ]	[ ]
Counseling services	[ ]	[ ]	[ ]
Financial Aid	[ ]	[ ]	[ ]
Health services	[ ]	[ ]	[ ]
Library services	[ ]	[ ]	[ ]
Learning Laboratory	[ ]	[ ]	[ ]
Registration	[ ]	[ ]	[ ]
Tutorial & study skills service	[ ]	[ ]	[ ]
Veterans' services	[ ]	[ ]	[ ]
Job placement	[ ]	[ ]	[ ]
Student activities	[ ]	[ ]	[ ]

19. How would you rate the following? Place a check (✓) in the appropriate column.

	Excel lent	Adeq uate	Unsat isfac tory
Time courses were offered	[ ]	[ ]	[ ]
Variety of programs offered	[ ]	[ ]	[ ]
Variety of courses offered	[ ]	[ ]	[ ]

20. Which of the following statements would best describe your relationships with other students at this school? They were

[ ] an unimportant part of my school experience
[ ] a fairly important part of my school experience
[ ] a major part of my school experience

21. Students often have problems in the following areas. Please mark the column that best describes your feelings.

	Prob lem	Not a Prob lem	Cannot Tell Yet
Managing my time	[ ]	[ ]	[ ]
Handling the content of my courses	[ ]	[ ]	[ ]
Trying to "find myself in the sense of personal meaning and identity	[ ]	[ ]	[ ]
Making decisions about my career	[ ]	[ ]	[ ]
Some aspect of parent/ family relations	[ ]	[ ]	[ ]
School-related personality conflicts	[ ]	[ ]	[ ]
Social relations	[ ]	[ ]	[ ]
My relationships with persons of the opposite sex	[ ]	[ ]	[ ]
Finances	[ ]	[ ]	[ ]
Transportation to and from school	[ ]	[ ]	[ ]
Health-medical	[ ]	[ ]	[ ]
Other (please specify)			

_____

_____

22. Please check any of the activities your school has in which you participated. Mark all that apply to you.

[ ] Clubs and organizations
[ ] Student Government Association (SGA)
[ ] Dances
[ ] Intramural sports
[ ] Luncheons/dinners
[ ] Cultural programs
[ ] "Field" or "Activities" Day
[ ] Off-campus trips/conventions
[ ] Special holiday activities
[ ] Concerts
[ ] Other (please describe)

_____

_____

Appendix A-7

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ecombe Technical Institute
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Charles Harrell

Nash Technical Institute
Charles Rouse
Robert Settle

B. E. N.

STUDENT RETENTION RESEARCH PROJECT

October 29, 1980

Greetings:

Our records indicate that you attended Nash Technical Institute during the Spring Quarter 1980 but did not register for Summer Quarter classes. In order to understand and better serve our students, we are asking you to assist in the gathering of information by completing the enclosed survey form and returning it in the pre-addressed and stamped envelope included with this letter.

The survey is part of a research project being conducted by Beaufort County Community College, Edgecombe Technical College, and Nash Technical Institute (B.E.N.) on behalf of the Department of Community Colleges.

All information on the questionnaire will be kept confidential. Social security numbers are used only as an identifier for checking responses on computer and are not used for any other purpose.

Thank you for your prompt attention in completing and returning this survey.

Sincerely,

H. David Keim

H. David Keim
Co-Director, B.E.N. Project

HDK:lbb

Enclosures

DON'T FORGET B.E.N.!!

Please RETURN your B.E.N. Survey Form to Nash Technical Institute today.

Thank you for taking your time to help us better serve our community.

H. David Keim
B.E.N. Project Co-Director
Nash Technical Institute
Route 5, Box 255
Rocky Mount, NC 27801

APPENDIX B
ADMINISTRATION AND SCORING OF INSTRUMENTS

The purpose of this section is to instruct users on the techniques for scoring and provide the user with some guidelines for interpreting and analyzing the data provided by using the model.

One of the major flexibilities of the model design is the interpretive options available to the using institution. The model primarily provides a data base for interpretive design. One should be cautioned against the overuse of data to provide information as it may cause redundancy or possibly result in the 'creation' of pseudo-information through over-analysis. This, of course, is an extreme and should not be an effect produced by the normal use of the model instruments. It must be pointed out that the model is intended for use by individual institutions to provide realistic information concerning attrition in a manner descriptive of the student body and factors that are indigenous to that particular geographic and socio-economic climate. The model was designed with the thought that many institutions are over-burdened with record-keeping tasks and that the addition of this activity would increase that task. Therefore, methods for 'massaging' and interpreting data should be kept at a level comfortable to the operational ability of any institution, yet have the potential of providing a framework for greater detail within organizations having the manpower or automated processing capability to obtain greater degrees of thoroughness.

One of the chief concerns in utilizing the data provided by the model is the length of the informational data cycle. The cycle should be ideally composed of our small quarterly cycles of activity that exist in continuum to produce a single larger annual cycle. It is the intended design that

both of these cycles will be used in the 'number crunching' process and that different degrees of thoroughness be applied in seeking trends over long time periods and looking for causality during shorter time periods. Suggestions for methods in which to use data over long-term studies is provided although the flexibility to incorporate local usage according to needs is left to the individual institution.

Scoring and recording data: For convenience, the design for storing data is three structured sub-files which can be made a part of any currently structured data base or any manual system for keeping records. The construction of forms for maintaining manual records can be extracted from the organization given below. Computerized systems can perform directly from the information provided or may choose to make modification in record structures or the number of sub-files.

Note that the linking of sub-files to a student record is accomplished by social security number. If your institution utilizes student numbers other than social security numbers, these may be substituted in place of social security numbers. Copies of the actual questionnaires have been provided in Appendix A.

Sub-File #1 - The Application Questionnaire: (If your institution provides for these questions directly on the student application form, you may elect to include this data in your application file.) The descriptions include the name of the data item, the number and types of characters (alphabetical or numerical required for recording the data and the values used in scoring for those items requiring scores.

Note: All data items receiving no response or an invalid response are scored as a zero and are ignored in evaluating information.

DATA ITEM:	FIELD SIZE:	SCORING:
Social Security No.	9 Digits	No Value
Reason for Attending	1 Digit	1-6
Comment #1 (Part F)	25 Characters	No Value
Curriculum Choice	1 Digit	1-3

Total record size - 36 positions (comments may be varied according to your institutional needs).

Sub-File #2 - The Currently Enrolled Student Survey

DATA ITEM:	FIELD SIZE:	SCORING:
Question #1	2 Digits	Value Given
Question #2	2 Digits	Value Given
Question #3	1 Digit	1-4
Question #4	1 Digit	1-3
Question #5	1 Digit	1-6
Question #6	1 Digit	1-4
Question #7	1 Digit	1-7
Question #8	1 Digit	1-7
Question #9	1 Digit	1-3
Question #10	1 Digit	1-3
Question #11	1 Digit	1-7
Question #12	1 Digit	1-2
Question #13	1 Digit	1-4
Question #14	1 Digit	1-2
Question #15	1 Digit	1-2
Question #16	1 Digit	1-3
Question #17	1 Digit	1-5
Question #18	1 Digit	1-5
Question #19	1 Digit	1-4
Question #20	1 Digit	1-3
Question #21	1 Digit	1-3
Question #22	1 Digit	1-3
Question #23 (15 Parts)	1 Digit (each)	1-3
#23 Comment Line	25 Characters	No Value
Question #24	1 Digit	1-3
Question #25 (12 Parts)	1 Digit (each)	1-3
#25 Comment Line	25 Characters	No Value
Question #26 (11 Fields)	1 Digit (each)	1-2

Total Record Size - 102 positions (may be less if certain activities are excluded as noted below).

Note on Exclusions: Many institutions do not have certain of the activites included in Questions 23, 25, and 26. These activities may be excluded from the forms your institution uses.

Sub-File #3: Survey of Non-Continuing Students

DATA ITEM:	FIELD SIZE:	SCORING:
Question #1 (Comment)	20 Characters	No Value

ERIC Clearinghouse for Junior Colleges
96 Powell Library Building
University of California
Los Angeles, California 90024

NOV 19 1982

DATA ITEM:	FIELD SIZE:	SCORING:
Question #1 (Score)	2 Digits	(See Note)*
Question #2 (5 Fields)	2 Digits (each)	1-17
Question #2 (Comment)	12 Characters	As Written
Question #3	1 Digit	1-2
Question #4	1 Digit	1-3
Question #5	1 Digit	1-2
Question #5 (Comment)	1 Digit	Value Given
Question #6	1 Digit	1-3
Question #7	1 Digit	1-2
Question #7 (Blank)	1 Digit	1-2
Question #8	1 Digit	1-4
Question #9	1 Digit	1-2
Question #10	1 Digit	1-2
Question #11	1 Digit	1-3
Question #11 (Comment)	12 Characters	As Written
Question #12	1 Digit	1-5
Question #13	1 Digit	1-5
Question #14	1 Digit	1-4
Question #15	1 Digit	1-3
Question #16	1 Digit	1-3
Question #17	1 Digit	1-3
Question #18 (12 Parts)	1 Digit (each)	1-3
Question #19 (3 Parts)	1 Digit (each)	1-3
Question #20	1 Digit	1-3
Question #21 (12 Parts)	1 Digit (each)	1-3
Question #21 (Comment)	12 Characters	As Written
Question #22 (11 Fields)	1 Digit (each)	1-2

Total Record Size - 124 positions (size may be less if certain of the activities are excluded as in sub-file #2 note on exclusions).

Data cycles, length and utilization: The primary cycle for data collection is the quarter. Data is collected at the various times in conjunction with the methods outlined in the manual and according to the school calendar. During the course of the study, certain variation in student population and institutional characteristics presented factors regarding the study cycle. Although data must be collected on a quarterly basis and attrition/retention information extracted after each quarter, it is prudent to consider an annual cycle for overall trend analysis and the search for deeper understanding of factors relating to attrition. A number of points were brought out at various conferences and meetings held by the project staff. Meetings with the individuals assisting in the gathering of data at institutions participating in the study, and other workshops held across the state during the study helped shed some light on these matters.